

GSE SYSTEMS INC  
Form 10-Q  
November 14, 2016  
UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION  
WASHINGTON, D.C. 20549

FORM 10-Q

(Mark One)

Quarterly Report Pursuant to Section 13 or 15(d)  
of the Securities Exchange Act of 1934  
for the Quarterly Period Ended September 30, 2016

or

Transition Report Pursuant to Section 13 or 15(d)  
of the Securities Exchange Act of 1934  
for the transition period from \_\_\_\_ to \_\_\_\_

Commission File Number 001-14785

GSE Systems, Inc.  
(Exact name of registrant as specified in its charter)

Delaware 52-1868008  
(State of incorporation) (I.R.S. Employer Identification Number)

1332 Londontown Blvd., Suite 200, Sykesville MD 21784  
(Address of principal executive offices) (Zip Code)

Registrant's telephone number, including area code: (410) 970-7800

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Sections 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the Registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes [ X ]  
No [ ]

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T during the preceding 12 months (or for such period that the registrant was required to submit and post such files). Yes [ X ]  
No [ ]

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company. See the definitions of "large accelerated filer", "accelerated filer" and "smaller reporting company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer   Accelerated filer   Non-accelerated filer   Smaller reporting company  
(Do not check if a smaller reporting company)

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Indicate by check mark whether the registrant is a shell company (as defined in rule 12(b)-2 of the Exchange Act).  
Yes [ ] No [X]

There were 18,683,009 shares of common stock, with a par value of \$.01 per share outstanding as of November 14, 2016.

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GSE SYSTEMS, INC.  
 QUARTERLY REPORT ON FORM 10-Q  
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## PART I - FINANCIAL INFORMATION

## Item 1. Financial Statements

GSE SYSTEMS, INC. AND SUBSIDIARIES  
CONSOLIDATED BALANCE SHEETS  
(in thousands, except share and per share data)

	Unaudited	
	September	December
	30, 2016	31, 2015
<b>ASSETS</b>		
Current assets:		
Cash and cash equivalents	\$ 14,093	\$ 11,084
Restricted cash	1,601	1,771
Contract receivables, net	16,430	13,053
Prepaid expenses and other current assets	2,715	2,506
Total current assets	34,839	28,414
Equipment, software and leasehold improvements	6,862	7,003
Accumulated depreciation	(5,559 )	(5,407 )
Equipment, software and leasehold improvements, net	1,303	1,596
Software development costs, net	1,045	1,145
Goodwill	5,612	5,612
Intangible assets, net	533	775
Long-term restricted cash	1,735	1,779
Other assets	65	50
Total assets	\$ 45,132	\$ 39,371
<b>LIABILITIES AND STOCKHOLDERS' EQUITY</b>		
Current liabilities:		
Accounts payable	\$ 2,367	\$ 1,238
Accrued expenses	1,930	1,723
Accrued compensation	3,196	2,431
Billings in excess of revenue earned	12,358	9,229
Accrued warranty	1,534	1,614
Current contingent consideration	731	2,647
Other current liabilities	827	826
Total current liabilities	22,943	19,708
Contingent consideration	1,210	1,085
Other liabilities	866	210
Total liabilities	25,019	21,003
Commitments and contingencies	-	-
Stockholders' equity:		
Preferred stock \$.01 par value, 2,000,000 shares authorized, no shares issued and outstanding	-	-
Common stock \$.01 par value, 30,000,000 shares authorized, 20,281,920 shares issued and 18,683,009 shares outstanding in 2016, 19,510,770 shares issued and 17,911,859 shares outstanding in 2015	203	195

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Additional paid-in capital	74,952	73,481
Accumulated deficit	(50,431 )	(50,849 )
Accumulated other comprehensive loss	(1,612 )	(1,460 )
Treasury stock at cost, 1,598,911 shares in 2016 and 2015	(2,999 )	(2,999 )
Total stockholders' equity	20,113	18,368
Total liabilities and stockholders' equity	\$ 45,132	\$ 39,371

The accompanying notes are an integral part of these consolidated financial statements.

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GSE SYSTEMS, INC. AND SUBSIDIARIES  
CONSOLIDATED STATEMENTS OF OPERATIONS

(in thousands, except per share data)  
(Unaudited)

	Three months ended September 30,		Nine months ended September 30,	
	2016	2015	2016	2015
Revenue	\$14,428	\$14,809	\$39,820	\$42,476
Cost of revenue	10,704	11,214	28,913	32,701
Write-down of capitalized software development costs	-	1,538	-	1,538
Gross profit	3,724	2,057	10,907	8,237
Operating expenses:				
Selling, general and administrative	3,043	3,811	9,032	11,031
Restructuring charges	85	1,600	487	1,746
Depreciation	91	119	294	383
Amortization of definite-lived intangible assets	72	123	219	370
Total operating expenses	3,291	5,653	10,032	13,530
Operating income (loss)	433	(3,596 )	875	(5,293 )
Interest income, net	11	19	52	67
(Loss) gain on derivative instruments, net	(211 )	20	(346 )	(59 )
Other income (expense), net	15	(156 )	112	(235 )
Income (loss) before income taxes	248	(3,713 )	693	(5,520 )
Provision for income taxes	80	50	275	211
Net income (loss)	\$168	\$(3,763 )	\$418	\$(5,731 )
Basic earnings (loss) per common share	\$0.01	\$(0.21 )	\$0.02	\$(0.32 )
Diluted earnings (loss) per common share	\$0.01	\$(0.21 )	\$0.02	\$(0.32 )

The accompanying notes are an integral part of these consolidated financial statements.

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GSE SYSTEMS, INC. AND SUBSIDIARIES  
 CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME (LOSS)  
 (in thousands)  
 (Unaudited)

	Three months ended September 30, 2016		Nine months ended September 30, 2015	
Net income (loss)	\$168	\$(3,763)	\$418	\$(5,731)
Foreign currency translation adjustment	(50)	(76)	(152)	(206)
Comprehensive income (loss)	\$118	\$(3,839)	\$266	\$(5,937)

The accompanying notes are an integral part of these consolidated financial statements.

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GSE SYSTEMS, INC. AND SUBSIDIARIES  
CONSOLIDATED STATEMENT OF CHANGES IN STOCKHOLDERS' EQUITY  
(in thousands)  
(Unaudited)

	Common Stock		Additional Paid-in Capital	Accumulated Deficit	Accumulated Other Comprehensive Loss	Treasury Stock		Total
	Shares	Amount				Shares	Amount	
Balance, December 31, 2015	19,511	\$ 195	\$ 73,481	\$ (50,849 )	\$ (1,460 )	(1,599)	\$(2,999)	\$18,368
Stock-based compensation expense	-	-	882	-	-	-	-	882
Common stock issued for options exercised	322	3	594	-	-	-	-	597
Common stock issued for RSUs vested	449	5	(5 )	-	-	-	-	-
Foreign currency translation adjustment	-	-	-	-	(152 )	-	-	(152 )
Net income	-	-	-	418	-	-	-	418
Balance, September 30, 2016	20,282	\$ 203	\$ 74,952	\$ (50,431 )	\$ (1,612 )	(1,599)	\$(2,999)	\$20,113

The accompanying notes are an integral part of these consolidated financial statements.



GSE SYSTEMS, INC. AND SUBSIDIARIES  
CONSOLIDATED STATEMENTS OF CASH FLOWS

(in thousands)

(Unaudited)

	Nine months ended September 30,	
	2016	2015
Cash flows from operating activities:		
Net income (loss)	\$418	\$(5,731 )
Adjustments to reconcile net income (loss) to net cash provided by (used in) operating activities:		
Write-down of capitalized software development costs	-	1,538
Depreciation and amortization	294	383
Amortization of definite-lived intangible assets	219	370
Capitalized software amortization	296	291
Change in fair value of contingent consideration	(370 )	739
Stock-based compensation expense	900	407
Equity loss on investments	-	233
Loss on derivative instruments	346	59
Deferred income taxes	96	-
Loss on sales of equipment, software, and leasehold improvements	3	-
Changes in assets and liabilities:		
Contract receivables	(3,616 )	3,446
Prepaid expenses and other assets	(269 )	(358 )
Accounts payable, accrued compensation and accrued expenses	2,254	1,262
Billings in excess of revenue earned	3,183	(1,370 )
Accrued warranty	(80 )	158
Other liabilities	208	(120 )
Net cash provided by operating activities	3,882	1,307
Cash flows from investing activities:		
Proceeds from sale of equipment, software and leasehold improvements	30	-
Capital expenditures	(53 )	(217 )
Capitalized software development costs	(196 )	(1,411 )
Restrictions of cash as collateral under letters of credit	(4 )	(1,148 )
Releases of cash as collateral under letters of credit	254	1,824
Net cash provided by (used in) investing activities	31	(952 )
Cash flows from financing activities:		
Proceeds from issuance of common stock	594	-
Payments on line of credit	-	(339 )
Payments on contingent consideration	(1,421 )	(500 )
Net cash used in financing activities	(827 )	(839 )
Effect of exchange rate changes on cash	(77 )	(267 )
Net increase (decrease) in cash and cash equivalents	3,009	(751 )
Cash and cash equivalents at beginning of year	11,084	13,583
Cash and cash equivalents at end of period	\$14,093	\$12,832

The accompanying notes are an integral part of these consolidated financial statements.

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## 1. Summary of Significant Accounting Policies

### Basis of Presentation

The consolidated interim financial statements included herein have been prepared by GSE Systems, Inc. (the "Company," "GSE," "we," "us," or "our") without independent audit. In the opinion of the Company's management, all adjustments and reclassifications of a normal and recurring nature necessary to present fairly the financial position, results of operations and cash flows for the periods presented have been made. Certain information and footnote disclosures normally included in financial statements prepared in accordance with U.S. generally accepted accounting principles ("U.S. GAAP") have been condensed or omitted. The results of operations for interim periods are not necessarily an indication of the results for the full year. These consolidated financial statements should be read in conjunction with the consolidated financial statements and notes thereto included in the Company's Annual Report on Form 10-K for the year ended December 31, 2015 filed with the Securities and Exchange Commission on March 25, 2016. Certain reclassifications have been made to prior period amounts to conform to the current presentation.

The Company has two reportable segments as follows:

#### Performance Improvement Solutions (approximately 69% of revenue)

The Company's Performance Improvement Solutions segment primarily encompasses next generation power plant and process high-fidelity simulation solutions, as well as engineering solutions. This segment includes various simulation products, engineering services, and operation training systems delivered across the industries the Company serves: primarily nuclear and fossil fuel power generation, and the process industries. Simulation solutions include the following: (1) simulation software and services, including operator training systems, for the nuclear power industry, (2) simulation software and services, including operator training systems, for the fossil power industry, and (3) simulation software and services for the process industries used to teach fundamental industry processes and control systems to newly hired employees and for ongoing workforce development and training. GSE and its predecessors have been providing these services since 1976.

#### Nuclear Industry Training and Consulting (approximately 31% of revenue)

Nuclear Industry Training and Consulting provides highly specialized and skilled nuclear operations instructors and other consultants to the nuclear power industry. These employees work at clients' facilities under client direction. Examples of these highly skilled positions are senior reactor operations instructors, procedure writers, work management specialists, planners, and training material developers. This business is managed through the Company's Hyperspring subsidiary. The business model, management focus, margins, and other factors clearly separate this business line from the rest of the GSE product and service portfolio. Hyperspring has been providing these services since 2005.

Financial information about the two business segments is provided in Note 14 of the accompanying consolidated financial statements.

The preparation of financial statements in conformity with U.S. GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements as well as reported amounts of revenues and expenses during the reporting period. The Company's most significant estimates relate to revenue recognition on long-term contracts, product warranties, capitalization of software development costs, valuation of goodwill and intangible assets acquired, valuation of contingent consideration issued in business acquisitions, and the recoverability of deferred tax assets. Actual results could differ from these estimates and those differences could be material.

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## Revenue Recognition

The Company has (1) fixed-price contracts for the sale of uniquely designed/customized systems containing hardware and software, (2) fixed-price contracts for the sale of software licenses which may include post-contract support ("PCS") and other elements such as installation and training, and (3) time and material contracts for support and service agreements.

In accordance with Accounting Standards Codification ("ASC") 605-35, "Construction-Type and Production-Type Contracts", the Performance Improvement Solutions segment recognizes revenue for its fixed-price contracts for the sale of customized systems using the percentage-of-completion method. This methodology recognizes revenue and earnings as work progresses on the contract and is based on an estimate of the revenue and earnings to date, less amounts recognized in prior periods. The Company bases its estimate of the degree of completion of the contract by reviewing the relationship of costs incurred to date to the expected total costs that will be incurred on the project. Estimated contract earnings are reviewed and revised periodically as the work progresses, and the cumulative effect of any change in estimate is recognized in the period in which the change is identified. Estimated losses are charged against earnings in the period such losses are identified. The Company recognizes revenue arising from contract claims either as income or as an offset against a potential loss only when the amount of the claim can be estimated reliably and realization is probable and there is a legal basis of the claim.

Uncertainties inherent in the performance of contracts include labor availability and productivity, material costs, change order scope and pricing, software modification and customer acceptance issues. The reliability of these cost estimates is critical to the Company's revenue recognition as a significant change in the estimates can cause the Company's revenue and related margins to change significantly from the amounts estimated in the early stages of the project.

The Company accrues for estimated warranty costs at the time the related revenue is recognized based on historical and projected claims experience. The Company's long-term contracts generally provide for a one-year warranty on parts, labor and any bug fixes as it relates to customized software embedded in the systems.

The Company evaluates customized system contracts for multiple deliverables under ASC 605-25, "Revenue Recognition-Multiple Element Arrangements", and when appropriate, separates the contracts into separate units of accounting for revenue recognition. Contracts with multiple element arrangements typically include, but are not limited to, components such as training and PCS, which are embedded in the contract. When a contract contains multiple deliverables, the Company allocates revenue to each deliverable based on its relative selling price which is determined based on its vendor specific objective evidence ("VSOE") if available, third party evidence ("TPE") if VSOE is not available, or estimated selling price if neither VSOE nor TPE is available. Amounts allocated to training and support services are based on VSOE and revenue is deferred until the services have been performed.

The Company also provides stand-alone PCS contracts. Such PCS arrangements are generally for a one-year period renewable annually and include customer support, unspecified software upgrades, and maintenance releases. The Company recognizes revenue from these contracts ratably over the life of the agreements.

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Revenue from the sale of software licenses without other elements in the contract and which do not require significant modifications or customization for the Company's modeling tools are recognized when the license agreement is signed, the license fee is fixed and determinable, delivery has occurred, and collection is considered probable. The Company utilizes written contracts as a means to establish the terms and conditions by which product support and services are sold to customers. Delivery is considered to have occurred when title and risk of loss have been transferred to the customer, which generally occurs after a license key has been delivered electronically to the customer and as support and services are delivered.

The Company also recognizes revenue from the sale of software licenses with multiple deliverables. These software license sales are evaluated under ASC 985-605, "Software Revenue Recognition". Contracts with multiple element arrangements typically include, but are not limited to, components such as installation, training, licenses, and PCS listed in the contract. The Company has not established VSOE for all elements of its bundled software license arrangements. If a PCS element exists in the software license arrangement, revenue is recognized ratably over the PCS service period. If no PCS element exists in the arrangement, revenue is deferred until all elements have been delivered.

The Company recognizes revenue under time and materials contracts primarily from the Nuclear Industry Training and Consulting segment and certain cost-reimbursable contracts. Revenue on time and material contracts is recognized as services are rendered and performed. Under a typical time-and-materials billing arrangement, customers are billed on a regularly scheduled basis, such as biweekly or monthly. Any earned but unbilled amounts are typically billed the following month. Under cost-reimbursable contracts, which are subject to a contract ceiling amount, the Company is reimbursed for allowable costs and paid a fee, which may be fixed or performance based. However, if costs exceed the contract ceiling or are not allowable under the provisions of the contract or applicable regulations, the Company may not be able to obtain reimbursement for all such costs.

#### Revisions

Historically, the Company recognized revenue on multiple element arrangements which included sales of its EnVision software product as delivery occurred on each element except PCS. PCS revenue was recognized ratably over the PCS term. During the fourth quarter of 2015, management determined that the Company had not established VSOE of the fair value for any of the elements in multiple element transactions including sales of its EnVision software licenses. Accordingly, the consolidated financial statements were revised to recognize all revenue on multiple element transactions including EnVision software license sales ratably over the PCS terms on these transactions since VSOE did not exist for any of the non-software elements in these multiple element transactions. The revision resulted in a decrease to revenue of \$152,000, an increase to cost of revenue of \$56,000, and an increase in operating loss of \$208,000 for the three months ended September 30, 2015. The revision resulted in a decrease to revenue of \$113,000, an increase to cost of revenue of \$52,000, and an increase in operating loss of \$165,000 for the nine months ended September 30, 2015.

Certain prior year amounts have also been revised in the consolidated statements of cash flows to reflect the corrections to net loss and changes in billings in excess of revenue earned, prepaid expenses and other assets. The revision had no impact on cash provided by operations or the net decrease in cash and cash equivalents.

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The Company assessed the materiality of these misstatements on prior periods' consolidated financial statements in accordance with SEC Staff Accounting Bulletin ("SAB") No. 99, Materiality, codified in ASC 250, Accounting Changes and Error Corrections, and concluded that these misstatements were not material to any prior annual or interim periods. Accordingly, in accordance with ASC 250 (SAB No. 108, "Considering the Effects of Prior Year Misstatements when Quantifying Misstatements in Current Year Financial Statements"), the consolidated financial statements as of September 30, 2015, which are presented herein, have been revised.

GSE SYSTEMS, INC. AND SUBSIDIARIES  
CONSOLIDATED STATEMENTS OF OPERATIONS

(in thousands, except per share data)

	Three months ended September 30, 2015			Nine months ended September 30, 2015		
	As Reported	Adjustment	As Revised	As Reported	Adjustment	As Revised
Revenue	\$ 14,961	\$ (152 )	\$ 14,809	\$ 42,589	\$ (113 )	\$ 42,476
Cost of revenue	11,158	56	11,214	32,649	52	32,701
Write-down of capitalized software development costs	1,538	-	1,538	1,538	-	1,538
Gross profit	2,265	(208 )	2,057	8,402	(165 )	8,237
Operating loss	(3,388 )	(208 )	(3,596 )	(5,128 )	(165 )	(5,293 )
Loss before income taxes	(3,505 )	(208 )	(3,713 )	(5,355 )	(165 )	(5,520 )
Net loss	\$(3,555 )	\$(208 )	\$(3,763 )	\$(5,566 )	\$(165 )	\$(5,731 )
Basic loss per common share	\$(0.20 )	\$(0.01 )	\$(0.21 )	\$(0.31 )	\$(0.01 )	\$(0.32 )
Diluted loss per common share	\$(0.20 )	\$(0.01 )	\$(0.21 )	\$(0.31 )	\$(0.01 )	\$(0.32 )

GSE SYSTEMS, INC. AND SUBSIDIARIES  
CONSOLIDATED STATEMENTS OF COMPREHENSIVE LOSS

(in thousands)

	Three months ended September 30, 2015			Nine months ended September 30, 2015		
	As Reported	Adjustment	As Revised	As Reported	Adjustment	As Revised
Net loss	\$(3,555 )	\$(208 )	\$(3,763 )	\$(5,566 )	\$(165 )	\$(5,731 )
Comprehensive loss	\$(3,631 )	\$(208 )	\$(3,839 )	\$(5,772 )	\$(165 )	\$(5,937 )

GSE SYSTEMS, INC. AND SUBSIDIARIES  
CONSOLIDATED STATEMENTS OF CASH FLOWS

(in thousands)

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Nine months ended September

30, 2015

As

As

Reported Adjustment Revised

Cash flows from operating activities:

Net loss	\$ (5,566)	\$ (165 )	\$ (5,731 )
Changes in assets and liabilities:			
Contract receivables, net	3,580	(134 )	3,446
Prepaid expenses and other assets	(409 )	51	(358 )
Billings in excess of revenue earned	(1,618)	248	(1,370 )
Net cash provided by operating activities	\$ 1,307	\$ -	\$ 1,307
Net decrease in cash and cash equivalents	\$ (751 )	\$ -	\$ (751 )

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## 2. Recent Accounting Pronouncements

### Accounting Pronouncements Recently Adopted

In November 2015, the Financial Accounting Standards Board ("FASB") issued ASU 2015-17, "Income Taxes (Topic 740): Balance Sheet Classification of Deferred Taxes". The standard requires that deferred tax assets and liabilities be classified as noncurrent on the balance sheet rather than being separated into current and noncurrent. ASU 2015-17 is effective for fiscal years, and interim periods within those years, beginning after December 15, 2016. Early adoption is permitted and the standard may be applied either retrospectively or on a prospective basis to all deferred tax assets and liabilities. The Company adopted ASU 2015-17 effective January 1, 2016. The adoption of this guidance did not have a material effect on the Company's consolidated financial position.

### Accounting Pronouncements Not Yet Adopted

In May 2014, the FASB issued ASU 2014-09, Revenue from Contracts with Customers, which provides guidance for revenue recognition. The standard's core principle is that a company will recognize revenue when it transfers promised goods or services to customers in an amount that reflects the consideration to which the company expects to be entitled in exchange for those goods or services. In doing so, companies will need to use more judgment and make more estimates than under today's guidance. These may include identifying performance obligations in the contract, estimating the amount of variable consideration to include in the transaction price and allocating the transaction price to each separate performance obligation. This guidance will be effective for the Company in the first quarter of its fiscal year ending December 31, 2018, and interim periods therein, using either of the following transition methods: (i) a full retrospective approach reflecting the application of the standard in each prior reporting period with the option to elect certain practical expedients, or (ii) a retrospective approach with the cumulative effect of initially adopting ASU 2014-09 recognized at the date of adoption (which includes additional footnote disclosures). The Company is currently in the process of evaluating the impact of its pending adoption of this ASU on the Company's consolidated financial statements and has not yet determined the method by which it will adopt the standard in 2018.

In February 2016, the FASB issued ASU 2016-02, "Leases (Topic 842)". The new standard establishes a right-of-use ("ROU") model that requires a lessee to record a ROU asset and a lease liability on the balance sheet for all leases with terms longer than 12 months. Leases will be classified as either finance or operating, with classification affecting the pattern of expense recognition in the income statement. The new standard is effective for fiscal years beginning after December 15, 2018, including interim periods within those fiscal years. A modified retrospective transition approach is required for lessees for capital and operating leases existing at, or entered into after, the beginning of the earliest comparative period presented in the consolidated financial statements, with certain practical expedients available. The Company is still evaluating the impact of the pending adoption of the new standard on the consolidated financial statements, and the Company expects that upon adoption the recognition of ROU assets and lease liabilities could be material.

In March 2016, the FASB issued ASU No. 2016-09, "Compensation - Stock Compensation: Topic 718: Improvements to Employee Share Based Accounting". The new guidance is intended to simplify the accounting for share based payment award transactions. The amendments in the update include the following aspects for share based accounting: accounting for income taxes, classification of excess tax benefits on the statement of cash flows, forfeitures, minimum statutory tax withholding requirements, and classification of employee taxes paid on the statement of cash flows when an employer withholds shares for tax withholding purposes. Adoption of ASU 2016-09 is required for fiscal reporting periods beginning after December 15, 2016, including interim reporting periods within those fiscal years. We are currently evaluating the potential impact of the adoption of ASU 2016-09 on our consolidated financial statements.

In August 2016, the FASB issued ASU No. 2016-15, "Classification of Certain Cash Receipts and Cash Payments". The new guidance addresses eight specific cash flow issues and applies to all entities that are required to present a



statement of cash flows. Adoption of ASU 2016-15 is required for fiscal reporting periods beginning after December 15, 2017, including interim reporting periods within those fiscal years. We are currently evaluating the potential impact of the adoption of ASU 2016-15 on our consolidated financial statements.

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## 3. Basic and Diluted Earnings (Loss) per Common Share

Basic earnings (loss) per share is based on the weighted average number of outstanding common shares for the period. Diluted earnings (loss) per share adjusts the weighted average shares outstanding for the potential dilution that could occur if stock options or other common stock equivalents were exercised into common stock.

The number of common shares and common share equivalents used in the determination of basic and diluted earnings (loss) per share were as follows:

(in thousands, except for share amounts)	Three months ended		Nine months ended	
	September 30, 2016	2015	September 30, 2016	2015
Numerator:				
Net income (loss)	\$ 168	\$(3,763)	) \$418	\$(5,731)
Denominator:				
Weighted-average shares outstanding for basic earnings per share	18,230,148	17,894,272	18,052,019	17,890,020
Effect of dilutive securities:				
Employee stock options	239,969	-	235,851	-
Adjusted weighted-average shares outstanding and assumed conversions for diluted earnings per share	18,470,117	17,894,272	18,287,870	17,890,020
Shares related to dilutive securities excluded because inclusion would be anti-dilutive	734,833	2,513,321	741,862	2,548,401

#### 4. Contingent Consideration

ASC 805, "Business Combinations", requires that contingent consideration be recognized at fair value on the acquisition date and be re-measured each reporting period with subsequent adjustments recognized in the consolidated statement of operations. The Company estimates the fair value of contingent consideration based on financial projections of the acquired companies and estimated probabilities of achievement and then discounts the liabilities to present value using a weighted-average cost of capital. Contingent consideration is valued using significant inputs that are not observable in the market which are defined as Level 3 inputs pursuant to fair value measurement accounting. The Company believes that the estimates and assumptions are reasonable, however, there is significant judgment involved. At each reporting date, the contingent consideration obligation is revalued to estimated fair value, and changes in fair value subsequent to the acquisitions are reflected in income or expense in the consolidated statements of operations and could cause a material impact to, and volatility in, the operating results. Changes in the fair value of contingent consideration obligations may result from changes in discount periods, changes in the timing and amount of revenue and/or earnings estimates, and changes in probability assumptions with respect to the likelihood of achieving the various earn-out criteria.

As of September 30, 2016, and December 31, 2015, contingent consideration included in current liabilities totaled \$0.7 million and \$2.6 million, respectively. As of September 30, 2016, and December 31, 2015, the Company also had accrued contingent consideration totaling \$1.2 million and \$1.1 million, respectively, which was reported as a noncurrent liability and represents the portion estimated to be payable greater than twelve months from the balance sheet date. During the three and nine months ended September 30, 2016, the Company made no payments and a payment of \$1.4 million, respectively, related to the liability-classified contingent consideration arrangements. During the three and nine months ended September 30, 2015, the Company made no payments and a payment of \$500,000, respectively, related to the liability-classified contingent consideration arrangements.

#### 5. Contract Receivables

Contract receivables represent balances due from a broad base of both domestic and international customers. All contract receivables are considered to be collectible within twelve months. Unbilled receivables represent costs incurred and associated profit accrued on contracts that will become billable upon future milestones or completion of contracts.

The components of contract receivables are as follows:

(in thousands)	September 30, 2016	December 31, 2015
Billed receivables	\$ 9,585	\$ 9,831
Unbilled receivables	6,866	3,325
Allowance for doubtful accounts	(21 )	(103 )
Total contract receivables, net	\$ 16,430	\$ 13,053

Unbilled receivables totaled \$6.9 million and \$3.3 million as of September 30, 2016, and December 31, 2015, respectively. During October 2016, the Company invoiced \$0.6 million of the unbilled amounts related to the balance at September 30, 2016.

As of September 30, 2016, the Company had one customer that accounted for 11.3% of consolidated contract receivables. As of December 31, 2015, the Company did not have any customers that accounted for more than 10% of the Company's consolidated contract receivables.



## 6. Software Development Costs

Certain computer software development costs are capitalized in the accompanying consolidated balance sheets. Capitalization of computer software development costs begins upon the establishment of technological feasibility. Capitalization ceases and amortization of capitalized costs begins when the software product is commercially available for general release to customers. Amortization of capitalized computer software development costs is included in cost of revenue and is determined using the straight-line method over the remaining estimated economic life of the product, typically three years. On an annual basis, and more frequently as conditions indicate, the Company assesses the recovery of the unamortized software development costs by estimating the net undiscounted cash flows expected to be generated by the sale of the product. If the undiscounted cash flows are not sufficient to recover the unamortized software costs, the Company will write down the investment to its estimated fair value based on future undiscounted cash flows. The excess of any unamortized software development costs over the related net realizable value is written down and charged to cost of revenue.

Software development costs capitalized were \$10,000 and \$196,000 for the three and nine months ended September 30, 2016, respectively, and \$0.5 million and \$1.4 million for the three and nine months ended September 30, 2015, respectively. Total amortization expense was \$111,000 and \$296,000 for the three and nine months ended September 30, 2016, respectively, and \$96,000 and \$291,000 for the three and nine months ended September 30, 2015, respectively.

## 7. Goodwill and Intangible Assets

### Goodwill

The Company reviews goodwill for impairment annually as of December 31 and whenever events or changes in circumstances indicate the carrying value of an asset may not be recoverable. The Company tests goodwill at the reporting unit level. A reporting unit is an operating segment, or one level below an operating segment, as defined by U.S. GAAP. The Company's reporting units are: (i) Performance Improvement Solutions and (ii) Nuclear Industry Training and Consulting. The \$5.6 million of goodwill originated from the Hyperspring acquisition in 2014 and is assigned to the Nuclear Industry Training and Consulting segment. No events or circumstances occurred during the current reporting period that would indicate impairment of such goodwill.

### Intangible Assets Subject to Amortization

The Company's intangible assets include amounts recognized in connection with business acquisitions, including contractual customer relationships, contract backlog, and technology. Intangible assets are initially valued at fair market value using generally accepted valuation methods appropriate for the type of intangible asset. Amortization is recognized on a straight-line basis over the estimated useful life of the intangible assets, except for contract backlog and contractual customer relationships which are recognized in proportion to the related projected revenue streams. The Company reviews specific definite-lived intangible assets for impairment when events occur that may impact their value in accordance with the respective accounting guidance for long-lived assets.

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## 8. Fair Value of Financial Instruments

ASC 820, "Fair Value Measurement", defines fair value as the exchange price that would be received for an asset or paid to transfer a liability (an exit price) in the principal or most advantageous market for the asset or liability in an orderly transaction between market participants on the measurement date. ASC 820 also establishes a fair value hierarchy which requires an entity to maximize the use of observable inputs and minimize the use of unobservable inputs when measuring fair value.

The levels of the fair value hierarchy established by ASC 820 are:

Level 1: inputs are quoted prices, unadjusted, in active markets for identical assets or liabilities that the reporting entity has the ability to access at the measurement date.

Level 2: inputs are other than quoted prices included within Level 1 that are observable for the asset or liability, either directly or indirectly. A Level 2 input must be observable for substantially the full term of the asset or liability.

Level 3: inputs are unobservable and reflect the reporting entity's own assumptions about the assumptions that market participants would use in pricing the asset or liability.

The Company considers the recorded value of certain of its financial assets and liabilities, which consist primarily of accounts receivable and accounts payable, to approximate the fair value of the respective assets and liabilities at September 30, 2016, and December 31, 2015, based upon the short-term nature of the assets and liabilities.

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The following table presents assets and liabilities measured at fair value at September 30, 2016:

(in thousands)	Level			Total
	Level 1	2	Level 3	
Money market funds	\$11,219	\$-	\$-	\$11,219
Total assets	\$11,219	\$-	\$-	\$11,219
Foreign exchange contracts	\$-	\$(230)	\$-	\$(230 )
Contingent consideration liability	-	-	(1,941)	(1,941 )
Total liabilities	\$-	\$(230)	\$(1,941)	\$(2,171 )

The following table presents assets and liabilities measured at fair value at December 31, 2015:

(in thousands)	Level	Level	Level 3	Total
	1	2		
Money market funds	\$8,979	\$-	\$-	\$8,979
Foreign exchange contracts	-	121	-	121
Total assets	\$8,979	\$121	\$-	\$9,100
Foreign exchange contracts	\$-	\$(57 )	\$-	\$(57 )
Contingent consideration liability	-	-	(3,732)	(3,732)
Total liabilities	\$-	\$(57 )	\$(3,732)	\$(3,789)

The following table provides a roll-forward of the fair value of the contingent consideration categorized as Level 3 for the nine months ended September 30, 2016:

(in thousands)

Contingent consideration:	
Beginning balance at January 1, 2016	\$3,732
Payments made on contingent liabilities	1,421
Change in fair value	370
Ending balance	\$1,941

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## 9. Derivative Instruments

The Company utilizes forward foreign currency exchange contracts to manage market risks associated with the fluctuations in foreign currency exchange rates. It is the Company's policy to use such derivative financial instruments to protect against market risk arising in the normal course of business in order to reduce the impact of these exposures. The Company minimizes credit exposure by limiting counterparties to nationally recognized financial institutions.

As of September 30, 2016, the Company had foreign exchange contracts outstanding of approximately 341.4 million Japanese Yen, 1.6 million Euro, 0.7 million Australian Dollars, and 0.5 million Canadian Dollars at fixed rates. The contracts expire on various dates through December 2018. At December 31, 2015, the Company had contracts outstanding of approximately 2.1 million Euro, 0.4 million Australian Dollars, 1.3 million Canadian Dollars and 0.5 million Pounds Sterling at fixed rates.

The Company has not designated any of the foreign exchange contracts outstanding as cash flow hedges and has recorded the estimated fair value of the contracts in the consolidated balance sheets as follows:

	September 30, 2016	December 31, 2015
(in thousands)		
Asset derivatives		
Prepaid expenses and other current assets	\$ -	\$ 115
Other assets	-	6
	-	121
Liability derivatives		
Other current liabilities	(178 )	(57 )
Other liabilities	(52 )	-
	(230 )	(57 )
Net fair value	\$ (230 )	\$ 64

The changes in the fair value of the foreign exchange contracts are included in (Loss) gain on derivative instruments, net in the consolidated statements of operations.

The foreign currency denominated contract receivables, billings in excess of revenue earned and subcontractor accruals that are related to the outstanding foreign exchange contracts are remeasured at the end of each period into the functional currency using the current exchange rate at the end of the period. The gain or loss resulting from such remeasurement is also included in loss on derivative instruments, net in the consolidated statements of operations.

For the three and nine months ended September 30, 2016, and September 30, 2015, the Company recognized a net (loss) gain on its derivative instruments as outlined below:

	Three months ended September 30, 2016		Nine months ended September 30, 2015	
(in thousands)				



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Foreign exchange contracts-change in fair value	\$(125)	\$34	\$(302)	\$(53)
Remeasurement of related contract receivables, billings in excess of revenue earned, and subcontractor accruals	(86 )	(14)	(44 )	(6 )
(Loss) gain on derivative instruments, net	\$(211)	\$20	\$(346)	\$(59)

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## 10. Stock-Based Compensation

The Company recognizes compensation expense for all equity-based compensation awards issued to employees, directors and non-employees that are expected to vest. Compensation cost is based on the fair value of awards as of the grant date. The Company recognized \$412,000 and \$136,000 of stock-based compensation expense for the three months ended September 30, 2016, and September 30, 2015, respectively, and recognized \$900,000 and \$407,000 of stock-based compensation expense for the nine months ended September 30, 2016, and September 30, 2015, respectively.

In the nine months ended September 30, 2016, the Company granted 1,322,500 performance-based restricted stock units ("RSUs") with an aggregate fair value of \$1.9 million. In the three months ended September 30, 2016, the Company granted 1,162,500 performance-based RSUs with an aggregate fair value of \$1.6 million. The RSUs vest upon the achievement of specific performance measures. The fair value of the RSUs is expensed ratably over the requisite service period, which ranges between one and five years.

The performance-based RSUs granted during 2016 include 450,000 RSUs, which were canceled and reissued in accordance with the Chief Executive Officer's amended employment agreement dated July 1, 2016 and approved by the Board of Directors. The aggregate fair value of the RSUs reissued totaled \$469,000.

Additionally, on July 1, 2016, the Board of Directors approved an amendment to the performance-based RSU agreements with other employees, which reduced the time period from 90 to 30 consecutive trading days during which the volume weighted-average price ("VWAP") target must be attained in order for the RSUs to vest. This change resulted in an increase in the fair value of the RSUs granted of approximately \$250,000, which will be expensed ratably over the remaining requisite service period.

In the three and nine months ended September 30, 2016, the Company granted 70,000 and 204,824 time-based RSUs with an aggregate fair value of \$172,300 and \$471,650, respectively. The fair value of the RSUs is expensed ratably over the requisite service period.

The Company granted no new options and 40,000 stock options for the three and nine months ended September 30, 2016, respectively. The fair value of the options granted for the nine months ended September 30, 2016 was \$46,000. The Company granted no new options and 60,000 stock options for the three and nine months ended September 30, 2015, respectively. The fair value of the options granted for the nine months ended September 30, 2015 was \$48,000.

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## 11. Long-Term Debt

At September 30, 2016, and December 31, 2015, the Company had no long-term debt.

### Lines of Credit

#### BB&T Bank

At September 30, 2016, the Company had a Master Loan and Security Agreement (the "Loan Agreement") and Revolving Credit Note with BB&T Bank. The Company and its subsidiary, GSE Performance Solutions, Inc., were jointly and severally liable as co-borrowers. The Loan Agreement provides a \$7.5 million revolving line of credit for the purpose of (i) issuing stand-by letters of credit and (ii) providing working capital. Working capital advances bear interest at a rate equal to the Wall Street Journal Prime Rate of Interest, floating with a floor of 4.5%.

The agreement would have expired on September 30, 2016, but the Company and BB&T Bank amended the Loan Agreement to extend the expiration date until March 31, 2017. All other terms and conditions remained the same.

As collateral for the Company's obligations, the Company granted a first lien and security interest in all of the assets of the Company, including but not limited to, contract receivables, intangible assets, equipment, software and leasehold improvements.

The Company is obligated to maintain a segregated cash collateral account at BB&T Bank equal to the greater of (i) \$3.0 million or (ii) the aggregate principal amounts of all loans outstanding under the revolving credit facility (including any issued and outstanding letters of credit, working capital advances, and negative foreign exchange positions) as security for the Company's obligations. Under this agreement, BB&T Bank has complete and unconditional control over the cash collateral account.

At September 30, 2016, and December 31, 2015, the cash collateral account supporting standby letters of credit totaled \$3.3 million and \$3.5 million, respectively. The balances were classified as restricted cash on the consolidated balance sheets.

The Loan Agreement contains certain restrictive covenants regarding future acquisitions and incurrence of debt. In addition, the Loan Agreement contains financial covenants with respect to the Company's minimum tangible capital base and quick ratio.

Covenant	As of September 30, 2016
Minimum tangible capital base	Must exceed \$10.5 million \$27.0 million
Quick ratio	Must exceed 1.00 : 1.00 1.52 : 1.00

As of September 30, 2016, the Company was in compliance with its financial covenants as described above.

#### Letters of Credit and Bonds

As of September 30, 2016, the Company has nine standby letters of credit totaling \$3.3 million which represent advance payment and performance bonds on eight contracts. The Company has deposited the full value of nine standby letters of credit in escrow accounts, amounting to \$3.3 million, which have been restricted in that the Company does not have access to these funds until the related letters of credit have expired. The cash has been

recorded on the Company's consolidated balance sheets at September 30, 2016, as restricted cash, of which \$1.6 million is categorized as current restricted cash and \$1.7 million categorized as long-term restricted cash.

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## 12. Product Warranty

The Company accrues for estimated warranty costs at the time the related revenue is recognized based on historical experience and projected claims. The Company's long-term contracts generally provide for a one-year warranty on parts, labor and any bug fixes as it relates to customized software embedded in the systems. The portion of the warranty provision expected to be incurred within 12 months is classified as current within accrued warranty and totals \$1.5 million, while the remaining \$0.2 million is classified as long-term within other liabilities. The activity related to the warranty accrual is as follows:

(in thousands)

Balance at January 1, 2016	\$ 1,614
Warranty provision	459
Warranty claims	(385 )
Currency adjustment	(4 )
Balance at September 30, 2016	\$ 1,684

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## 13. Income Taxes

The Company's income tax expense for the nine months ended September 30, 2016, and September 30, 2015, differed from the expected income tax amounts computed by applying the federal corporate income tax rate of 35% to income (loss) before income taxes for the periods as shown in the table below.

(in thousands)	Three months ended September 30,		Nine months ended September 30,	
	2016	2015	2016	2015
Provision for income taxes	\$80	\$50	\$275	\$211
Effective tax rate	32.3%	(1.3)%	39.7%	(3.8)%

The Company's increase in effective tax rate for 2016 as compared to 2015 resulted mainly from a reduction in pre-tax loss in the U.S. The Company's income tax provision for interim periods is determined using an estimate of its annual effective tax rate, adjusted for discrete items arising in that quarter. Tax expense in both years is comprised mainly of foreign income tax expense, Alternative Minimum Tax, state taxes, and deferred tax expense relating to the tax amortization of goodwill.

Because of its net operating loss carryforwards, the Company is subject to U.S. federal and state income tax examinations from the year 1997 forward. The Company is subject to foreign tax examinations by tax authorities for years 2010 forward for Sweden, 2012 forward for China, and 2014 forward for both India and the UK.

An uncertain tax position taken or expected to be taken in a tax return is recognized in the consolidated financial statements when it is more likely than not (i.e., a likelihood of more than 50%) that the position would be sustained upon examination by tax authorities that have full knowledge of all relevant information. A recognized tax position is then measured at the largest amount of benefit that is greater than 50% likely of being realized upon ultimate settlement. Interest and penalties related to income taxes are accounted for as income tax expense.

The Company recognizes deferred tax assets to the extent that it is believed that these assets are more likely than not to be realized. The Company has evaluated all positive and negative evidence and determined that it will continue to assess a full valuation allowance on its U.S., Swedish, and Chinese net deferred assets as of September 30, 2016. The Company has determined that it is more likely than not that it will realize the benefits of its deferred taxes in the UK and India. In 2015, the Company paid income taxes in the UK and India and expects to do so again in 2016.

## 14. Segment Information

The Company has two reportable business segments. The Performance Improvement Solutions business segment provides simulation, training products, and engineering products and services delivered across the breadth of industries the Company serves. Solutions include simulation for both training and engineering applications. Engineering services include plant design verification and validation. The Company provides these services across all of its market segments. Contracts typically range from six months to three years, with the majority of contracts in the range from 12 months to two years. GSE and its predecessors have been providing these services since 1976.

The Nuclear Industry Training and Consulting business segment provides specialized workforce solutions primarily to the U.S. nuclear industry, working at client facilities. This business is managed through the Company's Hyperspring subsidiary. Contracts typically range from six months to three years. Hyperspring has been providing these services since 2005.

The following table sets forth the revenue and operating results attributable to each reportable segment and includes a reconciliation of segment revenue to consolidated revenue and operating results to consolidated income (loss) before income tax expense:

(in thousands)	Three months ended		Nine months ended	
	September 30, 2016	2015	September 30, 2016	2015
Revenue:				
Performance Improvement Solutions	\$10,215	\$9,751	\$27,382	\$26,798
Nuclear Industry Training and Consulting	4,213	5,058	12,438	15,678
	\$14,428	\$14,809	\$39,820	\$42,476
Operating income (loss):				
Performance Improvement Solutions	\$(412 )	\$(3,732 )	\$(890 )	\$(5,658 )
Nuclear Industry Training and Consulting	321	442	1,395	1,104
Gain (loss) on change in fair value of contingent consideration, net	524	(306 )	370	(739 )
Operating income (loss)	\$433	\$(3,596 )	\$875	\$(5,293 )
Interest income, net	11	19	52	67
(Loss) gain on derivative instruments, net	(211 )	20	(346 )	(59 )
Other income (expense), net	15	(156 )	112	(235 )
Income (loss) before income taxes	\$248	\$(3,713 )	\$693	\$(5,520 )

## 15. Commitments and Contingencies

The Company has contingent liabilities that, in management's judgment, are not probable of assertion. If such unasserted contingent liabilities were to be asserted, or become probable of assertion, the Company may be required to record significant expenses and liabilities in the period in which these liabilities are asserted or become probable of assertion.

## Item 2. Management's Discussion and Analysis of Financial Condition and Results of Operations

GSE is a performance improvement company. We enhance plant performance with a combination of simulation, engineering, and plant services that help clients improve their plant's profitability, productivity, and safety. GSE is the parent company of the following entities:

GSE Performance Solutions, Inc. (formerly GSE Power Systems, Inc.), a Delaware corporation;  
GSE Power Systems, AB, a Swedish corporation;  
GSE Engineering Systems (Beijing) Co. Ltd., a Chinese limited liability company;  
GSE Systems, Ltd., a Scottish limited liability company;  
EnVision Systems (India) Pvt. Ltd., an Indian limited liability company; and  
Hyperspring, LLC, an Alabama limited liability company.

The Company has a 50% interest in IntelliQlik, LLC, a Delaware limited liability company.

### Cautionary Statement Regarding Forward-Looking Statements

This report contains forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended. The Private Securities Litigation Reform Act of 1995 provides a "safe harbor" for forward-looking statements. Forward-looking statements are not statements of historical facts, but rather reflect our current expectations concerning future events and results. We use words such as "expects", "intends", "believes", "may", "will" and "anticipates" to indicate forward-looking statements. Because these forward-looking statements involve risks and uncertainties, there are important factors that could cause actual results to differ materially from those expressed or implied by these forward-looking statements, including, but not limited to, those factors set forth under Item 1A - Risk Factors of the Company's 2015 Annual Report on Form 10-K and those other risks and uncertainties detailed in the Company's periodic reports and registration statements filed with the Securities and Exchange Commission. We caution that these risk factors may not be exhaustive. We operate in a continually changing business environment, and new risk factors emerge from time to time. We cannot predict these new risk factors, nor can we assess the effect, if any, of the new risk factors on our business or the extent to which any factor or combination of factors may cause actual results to differ from those expressed or implied by these forward-looking statements.

If any one or more of these expectations and assumptions proves incorrect, actual results will likely differ materially from those contemplated by the forward-looking statements. Even if all of the foregoing assumptions and expectations prove correct, actual results may still differ materially from those expressed in the forward-looking statements as a result of factors we may not anticipate or that may be beyond our control. While we cannot assess the future impact that any of these differences could have on our business, financial condition, results of operations and cash flows or the market price of shares of our common stock, the differences could be significant. We do not undertake to update any forward-looking statements made by us, whether as a result of new information, future events or otherwise. You are cautioned not to rely unduly on such forward-looking statements when evaluating the information presented in this report.

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## General Business Environment

We operate through two reportable business segments: Performance Improvement Solutions and Nuclear Industry Training and Consulting. Each segment focuses on delivering solutions to customers within our targeted markets - primarily the power and process industries. Marketing and communications, accounting, finance, legal, human resources, information systems and other administrative services are organized at the corporate level. Business development and sales resources are generally aligned with each segment to support existing customer accounts and new customer development. Our two business segments are:

### Performance Improvement Solutions (approximately 69% of revenue)

The Company's Performance Improvement Solutions segment primarily encompasses next generation power plant and process high-fidelity simulation solutions, as well as engineering solutions. This segment includes various simulation products, engineering services, and operation training systems delivered across the industries the Company serves: primarily nuclear and fossil fuel power generation, and the process industries. Simulation solutions include the following: (1) simulation software and services, including operator training systems, for the nuclear power industry, (2) simulation software and services, including operator training systems, for the fossil power industry, and (3) simulation software and services for the process industries used to teach fundamental industry processes and control systems to newly hired employees and for ongoing workforce development and training. GSE and its predecessors have been providing these services since 1976.

### Nuclear Industry Training and Consulting (approximately 31% of revenue)

Nuclear Industry Training and Consulting provides highly specialized and skilled nuclear operations instructors and other consultants to the nuclear power industry. These employees work at clients' facilities under client direction. Examples of these highly skilled positions are senior reactor operations instructors, procedure writers, work management specialists, planners, and training material developers. This business is managed through the Company's Hyperspring subsidiary. The business model, management focus, margins and other factors clearly separate this business line from the rest of the GSE product and service portfolio. Hyperspring has been providing these services since 2005.

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## Business Strategy

Our objective is to create a technology-enabled engineering, software and training services platform by capitalizing on near and long-term growth opportunities primarily in the nuclear power industry. We offer our differentiated suite of products and services to adjacent markets such as process industries where our offerings are a natural fit with a clear and compelling value proposition for the market. Our primary growth strategy is twofold: (1) expand organically within our core markets by leveraging our market leadership position and drive increased usage and product adoption via new products and services, and (2) seek acquisitions to accelerate our overall growth in a manner that is complementary to our core business. To accomplish this, we will pursue the following activities:

Expand our total addressable market. Our focus on growth means introducing product capabilities or new product categories that create value for our customers and therefore expand our total addressable market. Currently we are working on initiatives to expand our solution offerings in both our business segments which may include, but not be limited to, the following: expanding our software product portfolio to the industries we serve with enhanced power and process simulation tools and systems that are complementary to our core offerings; delivering enhanced learning management systems/solutions; offering fully outsourced training solutions to our customers; adding work flow process improvement solutions; and tailoring operational reporting and business intelligence solutions to address the unique need of our end user markets. Initiatives such as these will broaden our scope and enable us to engage more deeply with the segments we serve. Recently, we have delivered a compelling new solution, the GSE GPWR™ Generic Pressurized Water Reactor simulation technology, proving that our modeling technology can be sold via traditional license terms and conditions to the nuclear industry ecosystem. We have both upgraded and expanded the EnVision library of simulation and eLearning tutorials for the process industries with specific new products for training clients in the upstream segment of the oil and gas industry. We continue to provide cutting edge training systems by adapting our technology to systems to meet the specific needs of customers such as U.S. government laboratories.

Pursue strategic acquisitions opportunistically. We intend to complement our organic growth strategy through selective acquisitions of other software, technical engineering, and service businesses, both domestic and international, which would enhance our existing portfolio of products, strengthen our relationships with our existing customers, and potentially expand our footprint to include new customers in our core served industries. We have made several small acquisitions in recent years and believe the opportunity exists to do more. For example, in January 2011 we acquired EnVision Systems Inc., which provided interactive multi-media tutorials and simulation models, primarily to the process industries. We have integrated the technology assets from this acquisition and expanded the firm's application to other industries, and we intend to repeat this successful process. In 2014, we acquired Hyperspring, which enabled GSE to offer highly skilled nuclear operations and consulting know-how on site at a large segment of our client base on an operational basis providing essential services. This deepened our relationship with existing clients and won business for us at new client sites in the nuclear industry. This acquisition has proven to be very synergistic, enabling cross selling domestically, and in 2015, expanding these services internationally for the first time.

Continue to provide technology-enabled, market-leading solutions. We invest in research and development ("R&D") in order to deliver unique solutions that add value to our end-user markets. We have delivered nuclear core and Balance-of-Plant modeling and visualization systems to the industry. To address the nuclear industry's need for more accurate simulation of both normal and accident scenarios, we provide our DesignEP® and RELAP5-HD® solutions. Our entire JADE™ suite of simulation software, including industry leading JTOPMERET® and JElectric™ software, provides the most accurate simulation of Balance-of-Plant and electrical systems available to the nuclear and fossil plant simulation market. The significant enhancements we have made to our SimExec® and OpenSim™ platforms enables customers to be more efficient in the daily operation of their simulators. We are bringing SimExec® and OpenSim™ together into a next generation unified environment that will add new capabilities as requested by clients and driven by market need. We intend to continue to make prudent investments in R&D that first and foremost are driven by the market, and are complementary to advancing our growth strategy. Such investments in R&D may result

in on-going enhancement of existing solutions as well as the creation of new solutions to serve our target markets, ensuring that we add greater value, in an easier to use fashion, than any alternative available to customers and that we delight them in the process. GSE has pioneered a number of industry standards over our lifetime and will continue to be one of the most innovative companies in our industry.

Strengthen and develop our human capital. Our experienced employees and management team are our most valuable resources. Attracting, training, and retaining key personnel have been and will remain critical to our success. To achieve our human capital goals, we intend to remain focused on providing our personnel with entrepreneurial opportunities to increase client contact within their areas of expertise and to expand our business within our service offerings. We will also continue to provide our personnel with training, personal and professional growth opportunities, performance-based incentives including opportunities for stock ownership, and other competitive benefits.

Continue to deliver industry-recognized high quality services. We believe that we have developed a strong reputation for quality services based upon our industry-recognized depth of experience, ability to attract and retain quality professionals, and expertise across multiple service sectors. We have received many industry certificates and awards including being recognized for outstanding work on projects by Bechtel's Nuclear, Security & Environmental global business unit (NS&E) at the Bechtel Supply Chain Recognition awards in April 2016. In addition, we have a recognized high-value brand as one of the most respected providers of software and services to the industry, as evidenced by our marquee client base and significant market wins over the past year. A recently conducted survey of clients with projects underway and/or just delivered validates our brand with a Net Promoter Score of +65, a compelling score for an industrial technology and services company.

Expand international operations in selected markets. We believe there are additional opportunities for us to market our software and services to international customers, and to do so in a cost effective manner. For example, we believe partnerships with Value Added Resellers ("VAR") could significantly expand our sales pipeline for the EnVision software suite. Such VARs may yield positive results for our pursuing international nuclear opportunities globally (see industry trends below). We may explore the creation of appropriate joint ventures to target nuclear new-build programs in key growth regions.

Employees. As of September 30, 2016, we had approximately 275 employees, which includes approximately 190 in our Performance Improvement segment and 85 in our Nuclear Industry Training and Consulting segment. In addition we have approximately 100 licensed engineers and other advanced degreed professionals. Excluding our Hyperspring business, which consists primarily of contracted instructors, our employee attrition rate for 2016 among all staff was approximately 10%. To date, we have been able to locate and engage highly qualified employees as needed and we expect our growth efforts to be addressed through attracting top talent.

Backlog. As of September 30, 2016, we had approximately \$69.3 million of total gross revenue backlog. Most of our contracts range from 9 to 24 months. With respect to our backlog, it includes only those amounts that have been funded and authorized and does not reflect the full amounts we may receive over the term of such contracts. Our backlog includes future expected revenue at contract rates, excluding contract renewals or extensions that are at the discretion of the client. We calculate backlog without regard to possible project reductions or expansions or potential cancellations unless and until such changes may occur.

Backlog is expressed in terms of gross revenue and, therefore, may include significant estimated amounts of third-party or pass-through costs to subcontractors and other parties. Because backlog is not a defined accounting term, our computation of backlog may not necessarily be comparable to that of our industry peers.

## Industry Trends

### Industry need for building and sustaining a highly skilled workforce

We believe a critical ongoing challenge facing the industries we serve is access to and continued development of a highly trained and efficient workforce. This challenge manifests primarily in two ways: the increasing pace of the knowledge and experience lost as a significant percentage of the existing experienced workforce reaches retirement age over the next several years; and the fact that as new power plants come on-line, there is an increased demand for more workers to staff and operate those plants in addition to the plants in the existing fleet.

According to Power Engineering magazine, in the United States every sector in the energy industry is expected to lose a large percentage of its workforce within the next few years as baby boomers retire on the traditional schedule. The power sector alone will be forced to replace more than 100,000 skilled workers by 2018 simply to replace those retiring. The Nuclear Energy Institute estimates that 39% of the nuclear workforce will be eligible to retire by 2018. As the nuclear industry expands its fleet and strains to maintain the high standards of training the existing workforce, existing plant simulator systems, which provide these training services, are operating 24 hours a day. With workers retiring and the need to backfill as well as expand the workforce for new units, certain operators are exploring the opportunity to de-bottleneck their existing simulator capabilities through the creation of dual reference simulators.

Globally, as more people increase their standard of living, their demand for power will increase, which in turn will require the on-going construction of power plants to meet this surging demand. Developing a skilled labor force to operate these plants and keeping their skills current and their certifications in compliance with regulatory requirements is a key challenge facing the global power industry. Similar challenges face the process industries.

An important emerging trend to note seems to be a growing recognition that nuclear energy is an increasingly desirable form of energy production fulfilling a key component of zero carbon initiatives across the globe. Support for generating power from zero carbon emissions sources is evidenced by initiatives such as the 2015 United Nations Climate Change Conference. Nuclear power generation is a critical means of zero carbon power generation that is growing in importance as a result. We believe that GSE is well positioned to take advantage of these trends as they emerge and develop.

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## Growing global power demand and the increasing emphasis on nuclear power

World Energy Outlook 2015 projects that electricity demand will increase by more than 70% over the time period from 2013 to 2040. At the same time, countries globally are pledging to reduce greenhouse gas emissions despite this growth in demand for power. These trends are increasingly favorable to nuclear power. The United Kingdom illustrates this trend, with a recently announced energy policy that places a much greater reliance on nuclear power and unveiled plans for a new nuclear fleet, while slashing subsidies for solar energy and seeking to phase out coal fired power plants. With plans to build at least three new nuclear plants, the UK plans to add 16GWe of new nuclear capacity operating by 2030 according to World Nuclear Association.

There are currently 64 nuclear plants under construction in 15 countries, including 24 in China, nine in Russia, six in India and four in the United Arab Emirates according to the Nuclear Energy Institute. Four reactors are currently under construction in the U.S. including two for Southern Nuclear at the Vogtle, Georgia site and two at SCANA's VC Summer site. Tennessee Valley Authority's Watts Bar generating facility is up and running which represents a watershed for the US nuclear power industry. According to the World Nuclear Association, there are 165 reactors in 27 countries in specific phases of planning that will be operating by 2030. This pace of construction is surpassing the peak construction velocity of the 1970s and 1980s.

In addition to new plants, generating more power through enhanced plant performance - especially reducing unplanned outage time - is a critical objective for the nuclear power industry to meet growing global electricity demand. Capacity factors, also known as load factors, have been greater than 90% in the U.S. in five of the seven years from 2007 to 2013. The U.S. is recognized as the leader in load factor performance. The U.S. accounts for nearly one-third of the world's nuclear electricity, highlighting its importance as a market as well as its need for high levels of performance.

For the existing U.S. fleet, there is recognition that these nuclear plants are essential to meeting goals of reducing carbon emissions even as renewable energy sources are introduced. This recognition of the importance of nuclear providing zero-carbon baseload is demonstrated most recently by the state of New York's Clean Energy Standard that values the emission-free energy of New York's nuclear fleet and in so doing providing an emissions-free subsidy of 1.7¢/kWh. This subsidy helps ensure the state's existing nuclear plants remain economically viable in an era of low cost natural gas and even with wind and solar receiving a subsidy of 4.5¢/kWh. In regulated markets where the economy is growing, the nuclear fleet is profitable and expanding. In addition to the four reactors under construction in the US southeast, Georgia Power, a subsidiary of Southern Company, has gained approval from state regulators to spend up to \$99 million on site investigation and licensing costs for a new nuclear power plant in Stewart County, Georgia. For the longer term, the trends for nuclear power are favorable as well. The US Department of Energy recently released a draft plan to double America's nuclear power capacity by 2050. The plan, dubbed "Vision 2050", promotes expanding America's nuclear capacity through advanced reactor designs including small modular reactors (SMRs).

As countries around the world recognize the importance of lowering carbon emissions from power generation, nuclear energy is an essential component of the solution. India and the UK have recently announced plans to significantly expand nuclear power generation capacity through new builds. China continues to aggressively build out its fleet. In Japan, the strategic importance of nuclear power had led the Institute of Energy and Economics to estimate that 19 of Japan's temporarily shut down reactors will restart before March 2018.

We believe GSE is well positioned to take full advantage of these strategic global and domestic trends by providing high fidelity simulation and training solutions to the global power and process industries.

## Products and Services

### Performance Improvement Solutions

To assist our clients in creating world-class internal training and engineering improvement processes, we offer a set of integrated and scalable products and services which provide a structured program focused on continuous skills improvement for experienced employees to engineering services, which include plant design verification and validation. We provide the right solution to solve our clients' most pressing needs.

Our major elements of the Entry2Expert<sup>(R)</sup> Performance Solution include defining specific training needs by analyzing job functions, following proven processes to structure the entire training program for clients, providing world-class training content and series of simulation solutions for both the new employee and most experienced workers, and providing the expert training staff and consultants to ensure this is all implemented effectively.

For workforce development and training, students and instructors alike must have a high degree of confidence that their power plant simulator truly reflects plant behavior across the entire range of operations. To achieve this, GSE's simulation solution starts with the most robust engineering approach possible. Using state-of-the-art modeling tools combined with our leading nuclear power modeling expertise, GSE provides simulation solutions that achieve unparalleled fidelity and accuracy. The solutions that GSE provides are also known for ease of use, resulting in increased productivity by end-users. For these reasons, GSE has delivered more nuclear power plant simulators than any other company in the world.

For virtual commissioning, designers of first-of-a-kind plants or existing plants need a highly accurate dynamic simulation platform to model a wide variety of design assumptions and concepts from control strategies to plant behavior to human factors. Because new builds and upgrades to existing plants result in new technology being deployed, often involving the integration of disparate technologies for the first time, a high fidelity simulator allows designers to see the interaction between systems for the very first time. GSE's combination of simulation technology and expert engineering was chosen to build first-of-a-kind simulators for the AP1000, PBMR, NuScale, and mPower plants.

Examples of the types of simulators we sell include, but are not limited to, the following:

**Universal Training Simulators:** These products complement the Self-Paced Training Tutorials by reinforcing what the student learned in the tutorial, putting it into practice on the Universal Simulator. The simulation models are high fidelity and engineering correct, but represent a typical plant or typical process, rather than the exact replication of a client's plant. We have delivered over 250 such simulation models to clients consisting of major oil companies and educational institutions.

**Part-Task Training Simulators:** Like the Universal Simulators, we provide other unique training solutions such as a generic nuclear plant simulator and VPanel<sup>(R)</sup> displays, which replicate control room hardware and simulator solutions specific to industry needs such as severe accident models to train on and aid in the understanding of events like the Fukushima Daiichi accident.

**Plant-Specific Operator Training Simulators:** These simulators provide an exact replication of the plant control room and plant operations. They provide the highest level of realism and training and allow users to practice their own plant-specific procedures. Clients can safely practice startup, shutdown, normal operations, as well as response to abnormal events we all hope they never have to experience in real life. We have delivered nearly 450 plant-specific simulators to clients in the nuclear power, fossil power and process industries worldwide.

## Nuclear Industry Training and Consulting

As our customers' experienced staff retire, access to experts that can help with training existing and new employees in how to operate their plants is essential to ensure safe ongoing plant operations. In addition, training needs change over time and sometimes our clients require specialized courses. Industry needs instructors who can step in and use the client's training material. Finding professional instructors, who know the subject, can teach it and can adapt to the client's culture, is critical. GSE provides both qualified instructors and turnkey courses that work within the client's system and complement the training methods they already have in place. Examples of our training program courses are senior reactor operator certification, generic fundamentals training, and simulation supervisor training. In addition, we also provide expert support through staff augmentation or turnkey projects for the training material upgrade and development, outage execution, planning and scheduling, corrective actions programs, and equipment reliability.

GSE brings together the collection of skills we have amassed over more than 40 years beginning with its traditional roots in custom high fidelity simulation and training solutions for the power industries, extended through the acquisition of specialized engineering capabilities, enhanced by the entry and intermediate level training solutions of EnVision and the extensive nuclear industry training and consulting services of Hyperspring.

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## Results of Operations

The following table sets forth the results of operations for the periods presented expressed in thousands of dollars and as a percentage of revenue:

(in thousands)	Three months ended September 30,				Nine months ended September 30,			
	2016	%	2015	%	2016	%	2015	%
Revenue	\$14,428	100.0%	\$14,809	100.0%	\$39,820	100.0%	\$42,476	100.0%
Cost of revenue	10,704	74.2%	11,214	75.7%	28,913	72.6%	32,701	77.0%
Write-down of capitalized software development costs	-	0.0%	1,538	10.4%	-	0.0%	1,538	3.6%
Gross profit	3,724	25.8%	2,057	13.9%	10,907	27.4%	8,237	19.4%
Operating expenses:								
Selling, general and administrative	3,043	21.2%	3,811	25.7%	9,032	22.8%	11,031	26.0%
Restructuring charges	85	0.6%	1,600	10.8%	487	1.2%	1,746	4.1%
Depreciation	91	0.6%	119	0.8%	294	0.7%	383	0.9%
Amortization of definite-lived intangible assets	72	0.5%	123	0.8%	219	0.5%	370	0.9%
Total operating expenses	3,291	22.8%	5,653	38.2%	10,032	25.2%	13,530	31.9%
Operating income (loss)	433	3.0%	(3,596)	(24.3)%	875	2.2%	(5,293)	(12.5)%
Interest income, net	11	0.1%	19	0.1%	52	0.1%	67	0.2%
(Loss) gain on derivative instruments, net	(211)	(1.5)%	20	0.1%	(346)	(0.9)%	(59)	(0.1)%
Other income (expense), net	15	0.1%	(156)	(1.0)%	112	0.3%	(235)	(0.6)%
Income (loss) before income taxes	248	1.7%	(3,713)	(25.1)%	693	1.7%	(5,520)	(13.0)%
Provision for income taxes	80	0.6%	50	0.4%	275	0.7%	211	0.5%
Net income (loss)	\$168	1.2%	\$(3,763)	(25.4)%	\$418	1.0%	\$(5,731)	(13.5)%



## Critical Accounting Policies and Estimates

The preparation of financial statements in accordance with U.S. generally accepted accounting principles ("U.S. GAAP") requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Our estimates, judgments and assumptions are continually evaluated based on available information and experience. Because of the use of estimates inherent in the financial reporting process, actual results could differ from those estimates.

A summary of the Company's significant accounting policies as of December 31, 2015, is included in the Company's Annual Report on Form 10-K for the fiscal year ended December 31, 2015. Certain of our accounting policies require higher degrees of judgment than others in their application. These include revenue recognition, impairment of intangible assets, including goodwill, capitalization of computer software development costs, valuation of contingent consideration for business acquisitions, and deferred income tax valuation allowance. These critical accounting policies and estimates are discussed in the Management's Discussion and Analysis of Financial Condition and Results of Operations section in the 2015 Annual Report on Form 10-K for the fiscal year ended December 31, 2015.

Results of Operations - Three and nine months ended September 30, 2016, versus three and nine months ended September 30, 2015

Revenue. Total revenue for the three months ended September 30, 2016, totaled \$14.4 million, which was 2.6% less than the \$14.8 million total revenue for the three months ended September 30, 2015. For the nine months ended September 30, 2016, revenue totaled \$39.8 million, which was 6.3% less than the \$42.5 million of revenue for the nine months ended September 30, 2015. The decrease in revenue was primarily driven by the year over year decrease in revenue at Hyperspring, represented by our Nuclear Industry Training and Consulting segment, described below.

(in thousands)	Three months ended		Nine months ended	
	September 30, 2016	September 30, 2015	September 30, 2016	September 30, 2015
Revenue:				
Performance Improvement Solutions	\$10,215	\$9,751	\$27,382	\$26,798
Nuclear Industry Training and Consulting	4,213	5,058	12,438	15,678
Total Revenue	\$14,428	\$14,809	\$39,820	\$42,476

Performance Improvement Solutions revenue increased 4.8% from \$9.8 million for the three months ended September 30, 2015, to \$10.2 million for the three months ended September 30, 2016. We recorded total Performance Improvement Solutions orders of \$10.2 million in the three months ended September 30, 2016, as compared to \$3.8 million in the three months ended September 30, 2015. For the nine months ended September 30, 2016, Performance Improvement Solutions revenue was \$27.4 million compared to \$26.8 million for the nine months ended September 30, 2015. We recorded total orders of \$50.7 million in the nine months ended September 30, 2016, as compared to \$27.6 million in the nine months ended September 30, 2015.

Nuclear Industry Training and Consulting revenue decreased 16.7% from \$5.1 million for the three months ended September 30, 2015, to \$4.2 million for the three months ended September 30, 2016. Nuclear Industry Training and Consulting orders totaled \$3.6 million in the three months ended September 30, 2016, as compared to \$1.5 million for the three months ended September 30, 2015. For the nine months ended September 30, 2016, Nuclear Industry Training and Consulting revenue totaled \$12.4 million compared to \$15.7 million for the nine months ended September 30, 2015. We recorded total orders of \$12.1 million in the nine months ended September 30, 2016, compared to \$14.6 million in the nine months ended September 30, 2015.

At September 30, 2016, backlog was \$69.3 million: \$63.5 million for the Performance Improvement Solutions business segment and \$5.8 million for Nuclear Industry Training and Consulting. At December 31, 2015, the Company's backlog was \$47.9 million: \$41.9 million for the Performance Improvement Solutions business segment and \$6.0 million for Nuclear Industry Training and Consulting.

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Gross Profit. Gross profit totaled \$3.7 million for the three months ended September 30, 2016, compared to \$2.1 million for the same period in 2015. As a percentage of revenue, gross profit increased from 13.9% for the three months ended September 30, 2015, to 25.8% for the three months ended September 30, 2016. For the nine months ended September 30, 2016, gross profit was \$10.9 million compared to \$8.2 million for the same period in 2015. As a percentage of revenue, gross profit increased from 19.4% for the nine months ended September 30, 2015, to 27.4% for the nine months ended September 30, 2016.

(in thousands)	Three months ended September 30,				Nine months ended September 30,			
	2016	%	2015	%	2016	%	2015	%
Gross Profit:								
Performance Improvement Solutions	\$3,233	31.6%	\$2,919	29.9%	\$9,287	33.9%	\$7,993	29.8%
Nuclear Industry Training and Consulting	491	11.7%	676	13.4%	1,620	13.0%	1,782	11.4%
Write-down of capitalized software development costs	-	0.0%	1,538	10.4%	-	0.0%	1,538	3.6%
Consolidated Gross Profit	\$3,724	25.8%	\$2,057	13.9%	\$10,907	27.4%	\$8,237	19.4%

Excluding the \$1.5 million write-down of software development costs in the third quarter of fiscal year 2015, Performance Improvement Solutions had gross profit of \$3.2 million or 31.6% of segment revenue for the three months ended September 30, 2016, compared to \$2.9 million or 29.9% of segment revenue for the three months ended September 30, 2015.

Excluding the \$1.5 million write-down of software development costs in the third quarter of fiscal year 2015, Performance Improvement Solutions had gross profit of \$9.3 million or 33.9% of segment revenue for the nine months ended September 30, 2016, compared to gross profit of \$8.0 million or 29.8% of segment revenue for the nine months ended September 30, 2015.

The increase in gross margin percent for Performance Improvement Solutions for the nine months ended September 30, 2016, as compared to the same period in 2015, is mainly due to the decrease in total overhead costs. Total overhead costs, including capitalized software amortization and excluding the write-down of capitalized software, decreased from approximately \$3.4 million, or 13.9% of revenue, during the nine months ended September 30, 2015 to \$2.5 million, or 9.7% during the same period of 2016. The reduction mainly reflects the reduction in operations headcount in conjunction with the Company's September 2015 restructuring.

Nuclear Industry Training and Consulting had gross profit of \$0.5 million or 11.7% of segment revenue for the three months ended September 30, 2016, compared to \$0.7 million or 13.4% of segment revenue for the three months ended September 30, 2015.

Nuclear Industry Training and Consulting had gross profit of \$1.6 million or 13.0% of segment revenue for the nine months ended September 30, 2016, compared to gross profit of \$1.8 million or 11.4% of segment revenue for the nine months ended September 30, 2015.

The increase in Nuclear Industry Consulting and Training gross profit percent for the nine months ended September 30, 2016, as compared to the nine months ended September 30, 2015, mainly reflects the reduction in Tennessee Valley Authority ("TVA") revenue as a percentage of total revenue. TVA generally has lower margins than most of Hyperspring's contracts.

Selling, General and Administrative Expenses. Selling, general and administrative ("SG&A") expenses totaled \$3.0 million in the three months ended September 30, 2016, a 20.2% decrease from the \$3.8 million for the same period in 2015. For the nine months ended September 30, 2016, and September 30, 2015, SG&A expenses totaled \$9.0 million and \$11.0 million, respectively. These decreases reflect the following spending variances:

Business development and marketing costs decreased from \$1.2 million for the three months ended September 30, 2015, to \$0.8 million for the three months ended September 30, 2016, and decreased from \$4.0 million for the nine months ended September 30, 2015, to \$2.4 million for the nine months ended September 30, 2016. Bidding and proposal costs, a component of business development costs which are the costs of operations personnel assisting with the preparation of contract proposals, were \$0.1 million and \$0.2 million for the three months ended September 30, 2016, and September 30, 2015, respectively, and \$0.3 million and \$0.7 million for the nine months ended September 30, 2016, and September 30, 2015, respectively.

The Company's general and administrative expenses ("G&A") decreased to \$1.9 million from \$2.2 million for the three months ended September 30, 2016, and September 30, 2015, respectively, and decreased to \$5.6 million from \$5.9 million for the nine months ended September 30, 2016, and September 30, 2015, respectively. Some components of G&A are as follows:

For the three months ended September 30, 2016, and September 30, 2015, contingent consideration accretion income was \$0.5 million compared to accretion expense of \$0.3 million, respectively. For the nine months ended September 30, 2016, and September 30, 2015, contingent consideration accretion income was \$0.4 million compared to accretion expense of \$0.7 million, respectively. The decrease in contingent consideration accretion expense in 2016 is a result of Hyperspring's former partners being paid their prior year earnout based on EBITDA targets as well as the former partners being paid their one-time payment for securing a long-term contract renewal with TVA in 2015.

During the nine months ended September 30, 2016, the Company hired an outside consultant to review and document its procedures regarding revenue recognition, with special focus on software license and software maintenance revenue. The total cost incurred for these services was \$0.2 million.

Gross spending on software product development expenses for the three and nine months ended September 30, 2016, totaled \$0.4 million and \$1.3 million, respectively, as compared to \$0.9 million and \$2.6 million for the three and nine months ended September 30, 2015, respectively. The Company capitalized less than \$0.1 million and \$0.2 million of software product development expenses for the three and nine months ended September 30, 2016, respectively, and \$0.4 million and \$1.4 million for the same periods in 2015, respectively. Net software product development spending was \$0.4 million for the three months ended September 30, 2016 and September 30, 2015, and decreased from \$1.2 million for the nine months ended September 30, 2015, to \$1.1 million for the nine months ended September 30, 2016. Spending on simulator software development and modeling tools totaled \$0.3 million and \$0.9 million for the three and nine months ended September 30, 2016, respectively. Spending on software product development totaled \$0.5 million and \$1.7 million for the three and nine months ended September 30, 2015, respectively. The Company's software product development expenses were mainly related to a new configuration management system and the enhancement of JADE™ and SimExec® applications.

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**Restructuring Charges.** Restructuring charges totaled \$0.1 million and \$1.6 million for the three months ended September 30, 2016, and September 30, 2015, respectively. For the nine months ended September 30, 2016, and September 30, 2015, restructuring charges totaled \$0.5 million and \$1.7 million, respectively. Restructuring charges for the nine months ended September 30, 2016, are primarily due to severance costs for two departing executives.

**Depreciation.** Depreciation expense totaled \$0.1 million for the three months ended September 30, 2016, and September 30, 2015. For the nine months ended September 30, 2016, and September 30, 2015, depreciation expense totaled \$0.3 million and \$0.4 million, respectively.

**Amortization of Definite-lived Intangible Assets.** Amortization expense related to definite-lived intangible assets totaled \$0.1 million for the three months ended September 30, 2016 and September 30, 2015. For the nine months ended September 30, 2016 and September 30, 2015, amortization expense related to definite-lived intangible assets totaled \$0.2 million and \$0.4 million, respectively. The decrease in 2016 amortization expense reflects a decrease of amortization related to the intangible assets recorded with the Hyperspring acquisition in November 2014 which are being amortized over seven years.

**Operating Income (Loss).** The Company had operating income of \$0.4 million, or 3.0% of revenue, during the three months ended September 30, 2016, compared to an operating loss of \$3.6 million, or 24.3% of revenue, for the same period in 2015. For the nine months ended September 30, 2016 and September 30, 2015, the Company had operating income of \$0.9 million, or 2.2% of revenue, and an operating loss of \$5.3 million, or 12.5% of revenue, respectively. The variances were due to the factors outlined above.

**(Loss) Gain on Derivative Instruments, Net.** The Company periodically enters into forward foreign exchange contracts to manage market risks associated with the fluctuations in foreign currency exchange rates on foreign-denominated trade receivables. As of September 30, 2016, the Company had foreign exchange contracts outstanding of approximately 341.4 million Japanese Yen, 1.6 million Euro, 0.7 million Australian Dollars and 0.5 million Canadian Dollars at fixed rates. The contracts expire on various dates through December 2018. The Company has not designated the contracts as cash flow hedges and has recognized a loss on the change in the estimated fair value of the contracts of \$125,000 and \$302,000 for the three and nine months ended September 30, 2016, respectively.

As of September 30, 2015, the Company had foreign exchange contracts outstanding of approximately 2.6 million Euro, 0.5 million Australian Dollars, and 0.6 million Pounds Sterling at fixed rates. The contracts expire on various dates through December 2016. The Company had not designated the contracts as hedges and had recognized a gain of \$34,000 and a loss of \$53,000 for the three and nine months ended September 30, 2015, respectively.

The foreign currency denominated contract receivables, billings in excess of revenue earned, and subcontractor accruals that are related to the outstanding foreign exchange contracts were remeasured into the functional currency using the current exchange rate at the end of the period. For the three and nine months ended September 30, 2016, the Company recognized a loss of \$86,000 and \$44,000, respectively. For the three and nine months ended September 30, 2015, the Company recognized losses of \$14,000 and \$6,000, respectively.

**Other Income (Expense), Net.** For the three and nine months ended September 30, 2016, the Company recognized other income, net, of \$15,000 and \$112,000, respectively. For the three and nine months ended September 30, 2015, the Company recognized other expense, net, of \$156,000 and \$235,000, respectively. During the first quarter of 2016, the Company's Chinese subsidiary received a \$101,000 refund of Value Added Tax.

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## Provision for Income Taxes

Income tax expense was \$80,000 and \$275,000 with effective income tax rates of 32.3% and 39.7% for the three and nine months ended September 30, 2016, respectively. This is compared to income tax expense of \$50,000 and \$211,000 with effective income tax rates of (1.3%) and (3.8%), for the three and nine months ended September 30, 2015, respectively. The Company's income tax provision for interim periods is determined using an estimate of its annual effective tax rate, adjusted for discrete items arising in that quarter. Tax expense in both years is comprised mainly of foreign income tax expense, Alternative Minimum Tax, state taxes, and deferred tax expense relating to the tax amortization of goodwill.

Our income tax expense, deferred tax assets and liabilities and liabilities for unrecognized tax benefits reflect management's best estimate of current and future taxes to be paid. We are subject to income taxes in the United States and numerous foreign jurisdictions. Significant judgments and estimates are required in the determination of the consolidated income tax expense. Deferred income taxes arise from temporary differences between the tax basis of assets and liabilities and their reported amounts in the financial statements, which will result in taxable or deductible amounts in the future. In evaluating our ability to recover our deferred tax assets in the jurisdiction from which they arise, we consider all available positive and negative evidence, including scheduled reversals of deferred tax liabilities, projected future taxable income, tax-planning strategies, and results of recent operations. The Company has evaluated each jurisdiction independently and determined that it is more likely than not that it will place a full valuation allowance on its U.S., Swedish, and Chinese net deferred tax assets at September 30, 2016. In 2015, the Company paid income taxes in the UK and India and expects to do so again in 2016. Therefore, it will not place a valuation allowance on these deferred tax assets.

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## Liquidity and Capital Resources

As of September 30, 2016, the Company's cash and cash equivalents totaled \$14.1 million compared to \$11.1 million at December 31, 2015.

Cash provided by operating activities. For the nine months ended September 30, 2016, net cash provided by operations totaled \$3.9 million. Significant changes in the Company's assets and liabilities in the nine months ended September 30, 2016, included:

A \$3.6 million increase in the Company's contract receivables, which is comprised of trade receivables and unbilled receivables. The Company's unbilled receivables increased by approximately \$3.5 million to \$6.9 million at September 30, 2016, as compared to December 31, 2015. The increase in the unbilled receivables is due to the timing of contracted billing milestones of the Company's current projects, including \$3.2 million from the Company's largest customer. In October 2016, the Company invoiced \$0.6 million of the unbilled amounts; the remaining balance is expected to be invoiced and collected within one year.

A \$3.2 million increase in billings in excess of revenue earned. The increase is due to the timing of contracted billing milestones of the Company's current projects.

A \$2.3 million increase in accounts payable, accrued compensation and accrued expenses. The increase reflects an increase in Hyperspring accrued payroll due to the timing of their biweekly payroll cycle and the timing of payments made by the Company to vendors and subcontractors.

For the nine months ended September 30, 2015, net cash provided by operations totaled \$1.3 million. Significant changes in the Company's assets and liabilities in the nine months ended September 30, 2015, included:

A \$3.4 million decrease in the Company's contract receivables. The company's trade receivables, net of allowance for doubtful accounts, decreased from \$10.8 million at December 31, 2014 to \$7.5 million at September 30, 2015. At September 30, 2015, trade receivables outstanding greater than 90 days, net of bad debt reserve, totaled approximately \$1.1 million as compared to \$0.4 million at December 31, 2014. The Company's unbilled receivables decreased by approximately \$0.3 million to \$4.8 million at September 30, 2015 as compared to December 31, 2014. The decrease in unbilled receivables is due to the timing of contracted billing milestones of the Company's current projects.

A \$1.4 million decrease in billings in excess of revenue earned. The decrease is due to the timing of contracted billing milestones of the Company's current projects.

A \$1.3 million increase in accounts payable, accrued compensation and accrued expenses. The increase was due to the timing of payments made by the Company to vendors and subcontractors.

Cash provided by (used in) investing activities. Net cash provided by investing activities totaled \$31,000 for the nine months ended September 30, 2016. Capital expenditures totaled \$53,000, capitalized software development costs totaled \$196,000, and releases of restricted cash totaled \$254,000 for the nine months ended September 30, 2016. Proceeds from the sale of fixed assets totaled \$30,000.

Net cash used in investing activities totaled \$1.0 million for the nine months ended September 30, 2015. Capital expenditures totaled \$217,000 and capitalized software development costs totaled \$1.4 million for the nine months ended September 30, 2015. For the nine months ended September 30, 2015 releases of restricted cash as collateral under letters of credit totaled \$1.8 million and restrictions of cash used as collateral for outstanding letters of credit increased \$1.1 million.

Cash used in financing activities. Net cash used in financing activities totaled \$0.8 million for the nine months ended September 30, 2016. During the nine months ended September 30, 2016, the Company made payments of \$1.4 million to the former Hyperspring owners in accordance with the 2014 purchase agreement due to the achievement of certain EBITDA targets in 2015. During the same period, the Company received \$0.6 million for stock options exercised.

Net cash used in financing activities totaled \$0.8 million for the nine months ended September 30, 2015. The Company paid down \$339,000 of the outstanding balance of the line of credit during the nine months ended September 30, 2015. During the same period, the Company made payments of \$500,000 to the former EnVision Systems, Inc. members in accordance with the 2011 purchase agreement due to the achievement of certain revenue targets in 2014.

At September 30, 2016, the Company had cash and cash equivalents of \$14.1 million. The Company believes that its (i) cash and cash equivalents and (ii) cash generated from normal operations will be sufficient to fund its working capital and other requirements for at least the next twelve months.

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Lines of Credit

BB&T Bank

At September 30, 2016, the Company had a Master Loan and Security Agreement (the "Loan Agreement") and Revolving Credit Note with BB&T Bank. The Company and its subsidiary, GSE Performance Solutions, Inc., were jointly and severally liable as co-borrowers. The Loan Agreement provides a \$7.5 million revolving line of credit for the purpose of (i) issuing stand-by letters of credit and (ii) providing working capital. Working capital advances bear interest at a rate equal to the Wall Street Journal Prime Rate of Interest, floating with a floor of 4.5%.

The agreement would have expired on September 30, 2016, but the Company and BB&T Bank amended the Loan Agreement to extend the expiration date until March 31, 2017. All other terms and conditions remained the same.

As collateral for the Company's obligations, the Company granted a first lien and security interest in all of the assets of the Company, including but not limited to, contract receivables, intangible assets, equipment, software and leasehold improvements.

The Company is to maintain a segregated cash collateral account at BB&T Bank equal to the greater of (i) \$3.0 million or (ii) the aggregate principal amounts of all loans outstanding under the revolving credit facility (including any issued and outstanding letters of credit, working capital advances, and negative foreign exchange positions) as security for the Company's obligations. Under this amendment, BB&T Bank has complete and unconditional control over the cash collateral account.

At September 30, 2016, and December 31, 2015, the cash collateral account supporting standby letters of credit totaled \$3.3 million and \$3.5 million, respectively. The balances were classified as restricted cash on the consolidated balance sheets.

The Loan Agreement contains certain restrictive covenants regarding future acquisitions and incurrence of debt. In addition, the Loan Agreement contains financial covenants with respect to the Company's minimum tangible capital base and quick ratio.

	Covenant	As of September 30, 2016
Minimum tangible capital base	Must exceed \$10.5 million	\$27.0 million
Quick ratio	Must exceed 1.00 : 1.00	1.52 : 1.00

As of September 30, 2016, the Company was in compliance with its financial covenants as defined above.

Letters of Credit and Bonds

As of September 30, 2016, the Company has nine standby letters of credit totaling \$3.3 million which represent advance payment and performance bonds on eight contracts. The Company has deposited the full value of nine standby letters of credit in escrow accounts, amounting to \$3.3 million, which have been restricted in that the Company does not have access to these funds until the related letters of credit have expired. The cash has been recorded on the Company's consolidated balance sheets at September 30, 2016, as restricted cash, of which \$1.6 million is categorized as current restricted cash and \$1.7 million categorized as long-term restricted cash.

Item 3. Quantitative and Qualitative Disclosure about Market Risk

The Company's market risk is principally confined to changes in foreign currency exchange rates. The Company's exposure to foreign exchange rate fluctuations arises in part from customer contracts that are denominated in currencies other than the Company's functional currency as well as from inter-company accounts in which costs incurred in one entity are charged to other entities in different foreign jurisdictions. The Company is also exposed to foreign exchange rate fluctuations as the financial results of all foreign subsidiaries are translated into U.S. dollars in consolidation. As exchange rates vary, those results when translated may vary from expectations and adversely impact overall expected profitability.

The Company utilizes forward foreign currency exchange contracts to manage market risks associated with the fluctuations in foreign currency exchange rates. The principal currencies for which such forward exchange contracts are entered into are the Japanese Yen, the Euro, the Australian Dollar, the Canadian Dollar and Pound Sterling. It is the Company's policy to use such derivative financial instruments to protect against market risk arising in the normal course of business in order to reduce the impact of these exposures. The Company minimizes credit exposure by limiting counterparties to nationally recognized financial institutions.

As of September 30, 2016, the Company had foreign exchange contracts outstanding of approximately 341.4 million Japanese Yen, 1.6 million Euro, 0.7 million Australian Dollars, and 0.5 million Canadian Dollars. The contracts expire on various dates through December 2018. The Company has not designated the contracts as cash flow hedges and has recognized a loss on the change in the estimated fair value of the contracts of \$125,000 for the three months ended September 30, 2016, and a loss of \$302,000 for the nine months ended September 30, 2016. The foreign currency denominated contract receivables, billings in excess of revenue earned, and subcontractor accruals that are related to the outstanding foreign exchange contracts were remeasured into the functional currency using the current exchange rate at the end of the period. The gain or loss resulting from such remeasurement is also included in gain (loss) on derivative instruments, net in the consolidated statements of operations. For the three and nine months ended September 30, 2016, the Company recognized a loss of \$86,000 and \$44,000, respectively, from the remeasurement of such contract receivables, billings in excess of revenue earned and subcontractor accruals. For the same periods in 2015, the Company recognized losses of \$14,000 and \$6,000, respectively. A 10% fluctuation in the foreign currency exchange rates up or down as of September 30, 2016, would have increased/decreased the change in the estimated fair value of the contracts by \$11,300.

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#### Item 4. Controls and Procedures

##### (a) Evaluation of Disclosure Controls and Procedures

The Company maintains disclosure controls and procedures that are designed to ensure that information required to be disclosed by it in its reports filed or submitted pursuant to the Securities Exchange Act of 1934, as amended (the "Exchange Act"), is recorded, processed, summarized and reported within the time periods specified in the Securities and Exchange Commission's rules and forms and that information required to be disclosed by the Company in its Exchange Act reports is accumulated and communicated to management, including the Company's Chief Executive Officer ("CEO"), who is its principal executive officer, and Chief Financial Officer ("CFO"), who is its principal financial officer, to allow timely decisions regarding required disclosure. At the end of the period covered by this report, an evaluation was performed under the supervision and with the participation of our management including our CEO and our CFO, of the effectiveness of the design and operation of our disclosure controls and procedures pursuant to Rule 13-15(e) of the Exchange Act. Based on the evaluation of our disclosure controls and procedures as of September 30, 2016, our Chief Executive Officer and Chief Financial Officer concluded that, as of such date, our disclosure controls and procedures were not effective because of the material weakness identified below.

##### (b) Changes in Internal Control over Financial Reporting

As described in the Company's Annual Report on Form 10-K for the fiscal year ended December 31, 2015, management assessed the effectiveness of the Company's internal control over financial reporting and identified a material weakness in internal control over financial reporting related to ineffective controls over revenue recognition on software license sales with multiple deliverables.

As of September 30, 2016, the Company has not completed the implementation of control procedures to ensure that the material weakness related to revenue recognition on software license sales has been mitigated. As a result of this material weakness in our internal control over financial reporting, we performed additional review and analysis over our consolidated financial statements for the nine months ended September 30, 2016. As a result of these procedures, we believe that our consolidated financial statements are presented in accordance with U.S. GAAP. We anticipate that we will complete the revision of our controls over revenue recognition on software license sales with multiple deliverables in the fourth quarter 2016. We believe the measures will remediate the control deficiencies; however, the material weakness will not be considered remediated until management has concluded, through required testing, that these controls are operating effectively.

Except as described above, there were no changes in the Company's internal control over financial reporting that occurred during the most recent fiscal quarter that have materially affected or are reasonably likely to materially affect the Company's internal control over financial reporting.

##### (c) Limitation of Effectiveness of Controls

Internal control over financial reporting has inherent limitations. Internal control over financial reporting is a process that involves human diligence and compliance and is subject to lapses in judgment and breakdowns resulting from human failures. Internal control over financial reporting also can be circumvented by collusion or improper management override. Because of such limitations, there is a risk that material misstatements will not be prevented or detected on a timely basis by internal control over financial reporting. However, these inherent limitations are known features of the financial reporting process. Therefore, it is possible to design into the process safeguards to reduce, though not eliminate, this risk.

PART II - OTHER INFORMATION

Item 1. Legal Proceedings

None.

Item 1A. Risk Factors

The Company has no material changes to the disclosure on this matter made in its Annual Report on Form 10-K for the fiscal year ended December 31, 2015.

Item 2. Unregistered Sales of Equity Securities and Use of Proceeds

None

Item 3. Defaults Upon Senior Securities

None

Item 4. Mine Safety Disclosures

Not applicable.

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Item 5. Other Information

The Board of Directors authorized and directed that the Company file a Certificate of Elimination to eliminate the Series A Cumulative Convertible Preferred Stock, par value \$0.01 per share, none of which was outstanding, and cause such shares to resume the status of authorized and unissued shares of preferred stock of the Company, without designation as to series. On November 14, 2016, the Company filed such Certificate of Elimination and it became effective on such date.

Item 6. Exhibits

- 3.1 Restatement of Certificate of Incorporation dated November 14, 2016.
- 3.2 Certificate of the Elimination of the Series A Cumulative Convertible Preferred Stock dated November 14, 2016.
- 3.3 Third Amended and Restated Bylaws of GSE Systems, Inc. Incorporated herein by reference to Exhibit 3.2 of GSE Systems, Inc. Form 8-K filed with the Securities and Exchange Commission on September 16, 2016.
- 10.1 Letter dated October 31, 2016, from Branch Banking and Trust Company, agreeing to extend the Revolving Credit Expiration Date as defined in the Master Loan and Security Agreement dated November 22, 2011, between the Company, GSE Performance Solutions (as co-borrowers), and Branch Banking and Trust Company (as successor by merger to Susquehanna Bank), until March 31, 2017.
- 10.2 Form of Restricted Share Unit Agreement pursuant to the GSE Systems, Inc. 1995 Long-Term Incentive Plan, as amended and restated dated as of \_\_\_\_\_, 2016.
- 10.3 Employment Agreement between Christopher D. Sorrells and GSE Systems, Inc. dated as of August 15, 2016. Incorporated herein by reference to Exhibit 10.1 of GSE Systems, Inc. Form 8-K filed with the Securities and Exchange Commission on August 19, 2016.
- 10.4 Restricted Share Unit Agreement between Christopher D. Sorrells and GSE Systems, Inc. dated as of August 15, 2016. Incorporated herein by reference to Exhibit 10.2 of GSE Systems, Inc. Form 8-K filed with the Securities and Exchange Commission on August 19, 2016.
- 10.5 Restricted Share Unit Agreement between Christopher D. Sorrells and GSE Systems, Inc. dated as of August 15, 2016. Incorporated herein by reference to Exhibit 10.3 of GSE Systems, Inc. Form 8-K filed with the Securities and Exchange Commission on August 19, 2016.
- 10.6 Restricted Share Unit Agreement (Cash Award) between Christopher D. Sorrells and GSE Systems, Inc. dated as of August 15, 2016. Incorporated herein by reference to Exhibit 10.4 of GSE Systems, Inc. Form 8-K filed with the Securities and Exchange Commission on August 19, 2016.
- 31.1 Certification of the Chief Executive Officer pursuant to Section 302 of the Sarbanes- Oxley Act of 2002, filed herewith.
- 31.2 Certification of the Chief Financial Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002, filed herewith.
- 32.1

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Certification of the Chief Executive Officer and Chief Financial Officer pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, filed herewith.

101.INS\* XBRL Instance Document

101.SCH\* XBRL Taxonomy Extension Schema

101.CAL\* XBRL Taxonomy Extension Calculation Linkbase

101.DEF\* XBRL Taxonomy Extension Definition Linkbase

101.LAB\* XBRL Taxonomy Extension Label Linkbase

101.PRE\* XBRL Taxonomy Extension Presentation Linkbase

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SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned thereunto duly authorized.

Date: November 14, 2016  
GSE SYSTEMS, INC.

/S/ KYLE J. LOUDERMILK

Kyle J. Loudermilk  
Chief Executive Officer  
(Principal Executive Officer)

/S/ EMMETT A. PEPE

Emmett A. Pepe  
Senior Vice President and Chief Financial Officer  
(Principal Financial and Accounting Officer)